

# **EEE DEPARTMENT SYLLABUS**

## **III – SEMESTER**

### **1. ELECTRICAL CIRCUIT THEORY**

Electrostatics – Dc. Circuits – Network theorems – single phase AC circuits– Resonant circuits – Three phase AC circuits – DC Transients – storage Batteries

### **2. ELECTRICAL MACHINES – I**

Electromagnetism – transformer performance – DC Generators – DC Motors- Maintenance of machines.

### **3. ELECTRONIC DEVICES AND CIRCUITS**

Components – diodes – Rectifier – Transistor – and It's classification – SCR – DIAC – Triac – LDR – 7 segment LED - solar cell – Multi vibrator Astabe – monostable.

## **PRACTICAL**

### **4. Electrical Circuits And Machine Practical**

### **5. Electric Devices And Circuits Practical**

### **6. Work shop practical.**

## **IV - SEMESTER**

### **1. ELECTRICAL MACHINES – II**

Alternator principle – Construction – performance – Testing – synchronous motor – single phase motors – Three phase induction motors – Maintenance of Induction motors and starters.

### **2. MEASUREMENTS AND INSTRUMENTATION**

Classification and characteristics of Instruments – Measurement of voltage current and resistance – CRO – Measurement of power & energy – special Instruments – bridges – Transducers

### **3. ANALOG AND DIGITAL ELECTRONICS**

Linear IC – op amps – Timers – Boolean algebra – combinational logic – sequential logic –  
D/A convertor – A/D converter - memory

## **PRACTICAL**

#### **4. English communication Practical**

#### **5. Electrical Machines and Instrumentation practical**

#### **6. Analog and Digital Electronics practical.**

## **V – SEMESTER**

### **1. POWER SYSTEM – I**

Generation of Electrical power – Energy conservation – AC Transmission – HVDC  
Transmission – Line Insulators – UG Cables – Circuit Breakers – Fuses – Protective Relays –  
Earthing

### **2. MICROPROCESSOR AND MICRO CONTROLLER**

Microprocessor – Application – 8051 Micro controller – Programming concepts – Peripheral  
devices – Interfacing – Microcontroller Application

### **3. CONTROL OF ELECTRICAL MACHINES**

Control circuit components – DC motor control circuits – AC Motor control circuits – PLC –  
Maintenance of Transformers

## **PRACTICAL**

#### **4. Wiring and winding practical**

#### **5. Microprocessor and Microcontroller practical**

#### **6. Control of Electrical machine practical.**

## **VI – SEMESTER**

### **1. POWER SYSTEM – II**

Distribution – substations – Industrial drives – Electric Traction – Track Electrification – Traction Mechanics – Traction motors – Traction control – Illumination – Electric heating & welding.

### **2. ELECTRICAL ESTIMATION**

Electrical symbols – IE Rules – Specification of Electrical items – Internal wiring – Earthing – Testing of Installation – Domestic, Commercial, and Industrial Installation Estimate.

### **3. COMPUTER HARDWARE AND NETWORKING**

Mother boards – Processors – Peripherals – I/O ports – External peripherals – pc Assembling – Testing – Computer Network – Installation

## **PRACTICAL**

**4. Computer Aided Electrical Drawing Practical.**

**5. Computer hard ware and Networking practical**

**6. Project Work.**